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| APPLICATION NO.                        |      | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |  |
|--|------|-------------|----------------------|-------------------------|------------------|--|
| 09/824,051                             |      | 04/03/2001  | Patrice Gombert      | 109149                  | 9290             |  |
| 25944                                  | 7590 | 12/07/2006  |                      | EXAM                    | EXAMINER         |  |
| OLIFF & E                              |      | GE, PLC     | CASTELLANO           | CASTELLANO, STEPHEN J   |                  |  |
| P.O. BOX 19928<br>ALEXANDRIA, VA 22320 |      |             | ART UNIT             | PAPER NUMBER            |                  |  |
| ,                                      |      |             |                      | 3781                    | 3781             |  |
|  |      |             |                      | DATE MAILED: 12/07/2006 |                  |  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|  |   | Application No.   | Applicant(s)  |  |  |  |  |  |
|--|---|---|---|--|--|--|--|--|
| Office Action Summary  |   | 09/824,051  | GOMBERT ET AL.  |  |  |  |  |  |
|  |   | Examiner  | Art Unit  |  |  |  |  |  |
|  |   | Stephen J. Castellano   | 3781  |  |  |  |  |  |
|  | The MAILING DATE of this communication app  | l   | orrespondence address   |  |  |  |  |  |
| Period fo  | • •   |   |   |  |  |  |  |  |
| WHIC<br>- Exter<br>after<br>- If NO<br>- Failu<br>Any (  | ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DATE of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. It is period for reply is specified above, the maximum statutory period were to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION<br>36(a). In no event, however, may a reply be tim<br>rill apply and will expire SIX (6) MONTHS from<br>cause the application to become ABANDONEI | l. ely filed the mailing date of this communication. O (35 U.S.C. § 133). |  |  |  |  |  |
| Status   |   |   |   |  |  |  |  |  |
| 1)   | Responsive to communication(s) filed on 17 No   | ovember 2006.   |   |  |  |  |  |  |
| · · · · ·  |   | action is non-final.  |   |  |  |  |  |  |
| 3)   | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is   |   |   |  |  |  |  |  |
|  | closed in accordance with the practice under E  | x parte Quayle, 1935 C.D. 11, 45  | 3 O.G. 213.   |  |  |  |  |  |
| Dispositi  | on of Claims  |   |   |  |  |  |  |  |
| 4)🖂  | 4) Claim(s) 54-90 is/are pending in the application.  |   |   |  |  |  |  |  |
| ,  | 4a) Of the above claim(s) <u>65 and 69-89</u> is/are withdrawn from consideration.  |   |   |  |  |  |  |  |
| 5)   | 5) Claim(s) is/are allowed.   |   |   |  |  |  |  |  |
| 6)⊠  | 6)⊠ Claim(s) <u>64, 66-68 and 90</u> is/are rejected.   |   |   |  |  |  |  |  |
| 7)   | Claim(s) is/are objected to.  |   |   |  |  |  |  |  |
| 8)□  | 8) Claim(s) are subject to restriction and/or election requirement.   |   |   |  |  |  |  |  |
| Applicati  | on Papers   |   |   |  |  |  |  |  |
| 9)☐ The specification is objected to by the Examiner.  |   |   |   |  |  |  |  |  |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.   |   |   |   |  |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |   |   |   |  |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |   |   |   |  |  |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |   |   |   |  |  |  |  |  |
| Priority u   | inder 35 U.S.C. § 119   |   |   |  |  |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> </ul> |   |   |   |  |  |  |  |  |
|  | 2. Certified copies of the priority documents have been received in Application No  |   |   |  |  |  |  |  |
|  | 3. Copies of the certified copies of the priority documents have been received in this National Stage   |   |   |  |  |  |  |  |
|  | application from the International Bureau (PCT Rule 17.2(a)).   |   |   |  |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.   |   |   |   |  |  |  |  |  |
|  |   |   |   |  |  |  |  |  |
| Attachmen  | t(s)  |   |   |  |  |  |  |  |
|  | e of References Cited (PTO-892)   | 4) Interview Summary  | (PTO-413)   |  |  |  |  |  |
|  | e of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Da 5) Notice of Informal Pa  | te  |  |  |  |  |  |
|  | nation Disclosure Statement(s) (PTO/SB/08) r No(s)/Mail Date  | 6) Other:   | atent Application   |  |  |  |  |  |
|  |   |   |   |  |  |  |  |  |

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Claims 1-63 have been canceled. Claims 64-90 are pending. Claims 65 and 69-89 have been withdrawn as previously discussed in the Office action mailed April 4, 2005. Claims 64, 66-68 and 90 remain for action on their merits.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 64, 68 and 90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duhaime in view of Kuznia et al. (Kuznia).

Duhaime discloses a fuel tank comprising an insert (core 24), a wall of thermoplastic material (wall section 18 made from pliable parison 12), a portion (projection 26, 26') of the outside surface of the wall being overmolded on and in direct contact with the insert, which doesn't pierce through the wall, Fig. 7, 8 and 10 show how the core 24, the overmolded portion (projection 26, 26') and portions of the wall section 18 spaced below the projection 26, 26' are shaped to form a housing for attachment (member 28)(see Fig. 8 and 9, and flaps 44 in Fig. 9 and 10 which become housed within the housing formed between projection 26' and adjacent portions of the wall section 18), the overmolded portion forming a portion in relief on the inside of the tank (as the overmolded portion is inside of the outer surface of the fuel tank wall section 18 adjacent the projection 26, 26')that defines an internal housing with the wall section 18 spaced below the projection 26, 26', the attachment (28) is separate from the insert (core 24) and attached to the portion in relief and at least partially received in the housing inside the tank.

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Duhaime discloses the invention except for the insert material being of a material of higher melting temperature than the thermoplastic material of the wall.

Kuznia teaches a pressure differential housing sensor for a fuel tank system, the sensor has a wall of the housing 12 which has embedded therein by molding an insert (isolator 14) made of a metal or metal alloy. It would have been obvious to modify the material of Duhaime's to be metal or metal alloy as motivated by metal's strength, ductile properties allowing for the insert to withstand shrinkage of the thermoplastic has it cools after molding and thermal stability over a thermal operating range of - 25 degrees Centigrade to 125 degrees Centigrade.

Re claim 68, the end wall of the housing is formed at the inner circumference of the housing that contacts the aperture (30, 30') of the member 28.

Claims 66 and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Duhaime in view of Kuznia as applied to claim 64 above and further in view of Kasugai ('347).

The combination discloses the invention except for the valve and the portion in relief being on the top wall of the tank. Kasugai teaches a fuel tank with a fuel shut-off valve 12 mounted to the top wall of the tank. It would have been obvious to add a shut-off valve and to modify the portion in relief to be mounted on the top wall of the tank in order to include the capability of shutting off fuel flow when desired and to place the valve or another component in the top wall as the top wall provides the advantage of being a more protected location as well as closer to the well established connection of most fuel transfer components of the fuel tank than a bottom or sidewall of the fuel tank.

Applicant's arguments filed November 17, 2006 have been fully considered but they are not persuasive. Applicant argues that Duhaime teaches that core 24 is generally made from the

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same or compatible material as parison 12, while the metal insert of Kuznia is of different purpose in use as a sensor and of different material metal. The insert of Kuznia is similar to the insert of Duhaime in that both inserts are attachment elements which establish an attachment or connection with two components. The metal material is not seen as prohibited material as metal becomes malleable and subject to deformation when heated as is well known in forging processes and other metal shaping methods. The metal could be subjected to a similar squashing process as taught by Duhaime once the metal is heated.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Castellano whose telephone number is 571-272-4535. The examiner can normally be reached on IFP.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

> Stephen J. Castellano **Primary Examiner**

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